

a second alignment layer formed over said second substrate, wherein said first and second alignment layers are rubbed in rubbing directions;

a light modulating layer disposed between said first and second substrates wherein the light modulating layer comprises an anti-ferroelectric liquid crystal material having a thresholdless voltage-transmittance characteristic; and

a filter formed on said second substrate, wherein said filter allows specific wavelengths of light to pass.

9. The liquid crystal display element of claim 8 wherein the phase of said anti-ferroelectric liquid crystal material comprises Iso, SA and SC.

10. The liquid crystal display element of claim 8 wherein said first and second alignment layers are rubbed in a direction which is substantially parallel to a direction shifted from the normal direction of said light modulating layer and wherein the rubbing direction of said first alignment layer is different from the rubbing direction of said second alignment layer.

11. The liquid crystal display element of claim 8 wherein the difference in rubbing directions is about 10 degrees.

12. The liquid crystal display element of claim 8 wherein the surface tension of each of said first and second alignment layers is between about 49 dyn/cm and about 53 dyn/cm.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-406-4000

13. ~~The liquid crystal display element of claim 10 wherein the surface tension of each of said first and second alignment layers is between about 49 dyn/cm and about 53 dyn/cm.~~

14. A liquid crystal display element comprising:

a first substrate including, a first electrode formed on said first substrate, and a first alignment layer wherein said first alignment layer covers said first electrode;

a second substrate including, a second electrode formed on said second substrate, and a second alignment layer wherein said second alignment layer covers said second electrode; and

a light modulating layer of an anti-ferroelectric liquid crystal material between said first and second substrates and wherein said anti-ferroelectric liquid material has a thresholdless voltage-transmittance characteristic,

wherein said first and second alignment layers are combined with said liquid crystal material so an angle between the extending direction and quenching direction of a *batonnet* is within about  $\pm 1$  degree.

15. A liquid crystal display element of claim 14, wherein the quenching direction of a *batonnet* deposited from said first substrate is substantially coincident with the quenching direction of a *batonnet* deposited from said second substrate.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

16. The liquid crystal display element of claim 14, wherein said first and second alignment layers have a surface tension of about 49 dyn/cm to about 53 dyn/cm.

17. The liquid crystal display element of claim 15, wherein said first and second alignment layers have a surface tension of about 49 dyn/cm to about 53 dyn/cm.

AI  
concl

18. A liquid crystal display element as set forth in claim 14 further comprising a plurality of scanning lines and signal lines, on said first substrate; switching elements, each of which is formed at a corresponding one of the intersections between said scanning lines and said signal lines, one end of each of said switching elements being connected to a corresponding one of said signal lines; pixel electrodes, each of which is connected to the other end of a corresponding one of said switching elements; and said first alignment layer formed on said first substrate so as to cover said pixel electrodes, and said second electrode substrate is a counter substrate comprising a counter electrode formed on said second substrate, and said second alignment layer formed on said second substrate so as to cover said counter substrate.--

**REMARKS**

The added claims do not add any new matter. Rather the claims are directed at alternate embodiments of the instant invention.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000